

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 772-1041 jã	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/EP2004/006113	International filing date ( <i>day/month/year</i> ) 07 June 2004 (07.06.2004)	Priority date ( <i>day/month/year</i> ) 17 June 2003 (17.06.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant KUKA SCHWEISSANLAGEN GMBH			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Box No. I  | Basis of the report   |
| <input checked="" type="checkbox"/> Box No. II | Priority  |
| <input type="checkbox"/> Box No. III           | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/> Box No. IV            | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V  | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI            | Certain documents cited   |
| <input type="checkbox"/> Box No. VII           | Certain defects in the international application  |
| <input type="checkbox"/> Box No. VIII          | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland		Date of issuance of this report 01 May 2006 (01.05.2006)
Facsimile No. +41 22 740 14 35		Authorized officer  Ellen Moyse
Form PCT/TR/373 (January 2004)		Telephone No. +41 22 338 89 75

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

Translation

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

772-1041 jä

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2004/006113

International filing date (day/month/year)

07.06.2004

Priority date (day/month/year)

17.06.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

KUKA SCHWEISSANLAGEN GMBH

## 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This opinion has been established on the basis of a translation from the original language into the following language  
\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material
- ☐ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☐ in written format
- ☐ in computer readable form
- c. time of filing/furnishing
- ☐ contained in the international application as filed.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. II

Priority

1. ☒ The following document has not yet been furnished:
- ☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).
  - ☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).
- Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
<b>1. Statement</b>			
Novelty (N)	Claims	12-15, 18, 19, 21-23	YES
	Claims	1-11, 16, 17, 20	NO
Inventive step (IS)	Claims	14, 15, 18, 19	YES
	Claims	1-13, 16, 17, 20-23	NO
Industrial applicability (IA)	Claims	1-23	YES
	Claims		NO

**2. Citations and explanations:**

**1. Reference is made to the following documents:**

D1: Patent Abstracts of Japan, volume 1996, number 02, 29 February 1996 & JP 7285091 A (K G K:KK), 31 October 1995  
 D2: EP 0386729 A (Eckard Design GmbH), 12 September 1990  
 D3: EP 1216798 A (Genus Technologies), 26 June 2002

**2. Independent claim 1**

The subject matter of claim 1 is not novel within the meaning of PCT Article 33(2). Document D1 namely discloses (the references between parentheses relate to this document):

a gripping device for workpieces which is guided by a manipulator, the gripping device having a plurality of apparatus parts (2, 6) and a securing device for fixing geometry changes (by means of the switch 18), and the securing device having a deflection securing device (3, 7), which prevents collisions, on the apparatus parts.

As a consequence, all the features of claim 1 are known from D1.

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

Document D2 also discloses all the features of claim 1.

**3. Dependent claims 2-13, 16, 17, 20-23**

In view of the disclosure of documents D1 and D2, claims 2 to 13, 16, 17, and 20 to 23 do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step. The applicant is invited to comment on the following statements:

- claim 2: see D1, connecting parts between the robot arm (B) and the robot hand (A)
- claim 3: see D1, securing parts (3) and (7)
- claim 4: see D1, clamping and frictional connection by means of the spring (11)
- claim 5: see D1, latching element (14)
- claim 6: see D1, securing parts (3) and (7) connected or with apparatus parts (A) and (B)
- claim 7: see D1, latching element (14) between securing parts (3) and (7)
- claims 8 & 9: see D1, spring (15)
- claim 10: see D1, sphere (3) and enclosing mounting (7)
- claim 11: see D2, joint ball (3) and straight tube section (5)

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

- claims 12 & 13: not inventive because the annular collar is known from D2 and the enclosing cap is known from D1
- claims 16 & 17: see D1, detector (18)
- claim 20: it is mentioned in the description of D1 that the drives of the robot are brought to a standstill if an overload signal is transmitted. It goes without saying that a controller is required to evaluate this signal and to control the drives.
- claims 21 to 23: D3 discloses a gripping device for car-body parts, comprising a frame having a plurality of gripping or clamping elements and having a docking point for connection to a manipulator. The expert would use the securing devices disclosed in D1 for a gripping device as per D3, without thereby being inventive.

**4. Dependent claims 14, 15, 18, 19**

The combination of features contained in dependent claims 14, 15, 18 and 19 appears to be neither known from the present prior art nor rendered obvious by it.

**5. Industrial applicability**

Claims 1 to 23 meet the requirements of PCT Article 33(4) for industrial applicability.

**6. Other comments**

The applicant is requested to check the reference of dependent claims 4 to 23 to the other claims. For

WRITTEN OPINION OF THE  
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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

example, claim 4 should not be worded as "Gripping device according to claim 1, 2 or 3" but as "Gripping device according to claim 3", as it refers to the securing parts (11, 12) which are defined only in claim 3.